

# Electric Vehicle Association

## WASHINGTON SECTION

### ELECTRIC MACHINE IS MUCH IMPROVED

Makers Think Developments Will Continue Until Passenger Cars Become Lighter.

Although many people are apparently settled in the belief that the electric passenger automobile has reached perfection and that no further improvement is possible without some radical departure from accepted construction, the car makers themselves are far from sharing this view of the matter.

Each one is constantly striving for lighter and stronger chassis and bodies, less power loss through friction between the parts, greater battery efficiency and, above all, greater mileage per charge and reduced operating and maintenance cost to the owner.

Then, too, the manufacturers are each year surpassing themselves in the improvement of appearance and in luxurious fittings, finish and equipment. These features, developed in some cars to such an extent that they might be referred to as boudoirs on wheels, render the electric passenger car, as built to-day, especially attractive to women, and at the same time not too ornate for the everyday use of even the most conservative business men.

During the past year there have been many improvements in both chassis and body design. Chassis have been simplified, lightened and made more accessible wherever possible without impairing the solidity of construction which characterizes practically all the electric passenger cars on the market. The increased use of worm, spiral-bevel and herringbone gears in the final drive has done much to promote efficiency, and at the same time to make the operation of the cars more quiet and smoother. The use of aluminum for bodies, together with the elimination of rust in the working parts by the provision of improved protection, and the more thorough utilization of battery equipment have done much toward increasing the mileage per charge of vehicles and at the same time toward cutting down operating expense for the owner.

Besides the increased use of aluminum for body work, another factor tending toward lightness is the larger glass area, windows being for the most part of the standard variety, and easily lifted and lowered. Accessibility, chiefly in respect to batteries, has been generally improved.

### Hundreds of Motorists Make Trip to San Diego

Although the great influx is not expected until warmer weather opens up the roads throughout the East and Middle West, hundreds of automobile parties already have made the trans-continental trip over the Southern national highway to the San Diego Exposition, and before the end of 1915 it is believed that a total of 25,000 automobiles will cross the continent with visitors to the two California expositions. One large party of tourists already is being organized by J. J. Cole, president of the Ohio Motor Car Company, and several others are being planned by automobile owners in all parts of the country.

### Opens Battery Branch.

The Electric Storage Battery Company's "Exide" battery department, which was recently opened at 1825 L street, is the largest storage battery plant in the South. Manager F. L. T. N. reports that great interest has been shown by Washington automobile owners in the unique service which the "Exide" battery department is rendering to electric and gasoline auto owners, through which service batteries in electric cars are inspected and repaired, made to owners in order to improve their service, and gasoline car owners are afforded prompt repairs, thus being away with the necessity of tying up their cars.

**Haas in Florida.**  
J. J. Haas, manager of the Firestone Tire and Rubber Company's branch, is spending several weeks at St. Augustine and Miami, Fla.

### MANY ELECTRICS

Electric automobile registrations throughout the country are increasing, according to statistics compiled by the Electric Vehicle Association of America. The figures show that at the present time there are over 25,000 electrical passenger automobiles in use in the United States and over 12,000 electric trucks. Of this number the District of Columbia is credited with 784 pleasure cars and 105 trucks.

### FORAKER PATRONAGE OF HIGH CHARACTER

Company, Selling Ohio Electric, Numbers Among Customers Persons High in Society.

Arthur Foraker is the moving spirit in the Potomac Motor Car Company, agent here for the Ohio electric. The salesrooms and service department are on Connecticut avenue, and the company numbers among its customers persons high in official and social circles. Ohio electric, made by the Ohio Electric Car Company, Toledo, Ohio, are in five models for 1915, designated as 11, 21, 41, 51, and 61. The main differences over the models of the previous year are a still further refinement of body lines and the use of arched fenders, hammered by hand, from one piece of aluminum. A high stage in the body building art is reached in these new models. In the closed types the rear of the top rounds over into the back, while the sides have the same sweeping curves.

Model 11 is a new four-passenger coupe on a 34-inch wheel-base chassis and using a 35-cell, 12-plate battery. Westinghouse motor, bevel drive, and pneumatic tires.

Mechanically there is practically no change in the other cars, which are furnished with worm drive or helical-bevel gear drive in the rear axle, with the shaft running direct from the electric motor and completely enclosed.

The motor used in Models 21, 41, 51, and 61 is a specially designed type for Ohio electric. As ingenious feature of transmission unit is the fact that the torsion tube is supported between the motor and the rear axle at a point very near to the center of inertia. The idea of this device is to put all the weight of these members on the frame of the car, and above the springs so that they are sprung weight, effecting a saving in tires and power and making for a greater factor of safety. Thus, it is pointed out that the Ohio electric has unsurpassed weight only at the front axle.

The propeller shaft is of nickel-steel, the torsion tube and main axle tube, differential gears, also being made of this material. Springs, which are three-quarter elliptic in the rear and half elliptic in front, are made of vanadium steel.

### AUTOMOBILES

Motorcycles and Accessories.  
**GASOLENE CARS.**  
Commercial Auto & Supply Co., 215 4th st.  
**Studebaker**  
**ELECTRIC CARS.**  
Emerson & Orme, 1407 H st.  
**ACCESSORIES.**  
**National Electric Supply Co.,**  
1224-1230 N. Y. Ave.

### GRACE AND BEAUTY IN RAUSCH & LANG

Popular Electric in Seven Models Sold in Capital by Bartram Garage.

Seven models, all of worm-drive type, and known as the V series, are the 1915 product of the Raush & Lang Corvair Company, Cleveland, Ohio, represented here by the Bartram garage, of which John J. Bartram is the head. This year's models show no great change other than refinements of design. Certain body lines have been lengthened and curves added which give even more grace and beauty. Interior appointments have been made even more refined, and what changes have been made in the chassis are simply to add to the efficiency.

According to Raush & Lang, its trend is toward a larger type of car, and with this in view the company has included in its new line four cars of a size somewhat larger than the average electric. These are designated as the BX-5 brougham, the J-4 coach, the T-C 5 town car, and the TXC-5 town car.

These two town car models have two compartments, the drive part being separated from the more luxurious interior passenger compartment. The drive is by wheel rather than a lever, and in one there is a roof over the drive seat, while it is unprotected in the other.

All of these models, however, adhere to the same general chassis design throughout.

The battery equipment is of the eleven-plate Mv Hy-cap Exide, all cars except the coach model and the two town car models having forty-one cells, while the last named cars are provided with forty-two cells. The drive is of the straight type with the worm mounted over the wheel and incorporated in a floating rear axle. The motor, hung amidships of the frame drives straight back through a shaft fitted with a universal joint at either end.

The Raush & Lang Co. employs a motor of Hertzner make which is substantially the same as used for a number of years. It is comparatively light weight, high-speed type, having four poles with laminated pole pieces and rectangular copper wire windings. The large commutator and brush surfaces are features and ball bearings are fitted throughout.

In using worm drive the Raush & Lang Co. is in line with the latest developments in electric car practice.

### WOMEN DEMAND IMPROVED CARS

Rapid Evolution of Machines Due to Feminine Influence. Declares John H. Willys.

"Much of the rapid evolution of the motor car from a one-lunged contraption of pain and sorrow to a smooth running, luxurious vehicle can be attributed directly to feminine influences," says John H. Willys, president of the Willys-Overland company. "Woman has demanded and has been accorded her place in motordom, just as she has demanded and received practically everything else she wants, except the ballot," continued the Toledo manufacturer.

"Motor car manufacturers who fail to heed feminine requirements have not made the success they might otherwise have achieved. In many cases it is the final decision of a man's wife, sister or sweetheart that settles the question of the car he is going to buy. Consequently, it is only natural that we should consider the needs of woman in the design and construction of our cars."

"From a woman's standpoint, a motor that requires laborious cranking by hand is a relic of barbarism. She dislikes putting around with gas tanks and matches in order to turn on the lights. And her aversion to the car that does not do away with these unpleasant tasks is more than mere whim. An automobile without complete equipment is as inconvenient as a suit without buttons."

"In the new Overlands, every essential and practical convenience known to the automobile world has been installed that will tend to add to the pleasure a woman can derive from a car. The electric starting and lighting system has reduced what was formerly manual labor to the simple pressure of a button. Upholstering has been deepened, springs lengthened and improved and the riding qualities enhanced in many ways to make her more comfortable. In view of windshields of the ventilating type protect her from the elements. Foot rests, robe rails and many other accessories and refinements have been installed in consideration of her interests."

"If she desires to drive the car herself, the Overland switchbox, attached to the steering column, just below the wheel, places the ignition, lighting, starting, and horn controls within comfortable reach of her hand. With a slight turn of the finger she starts the car, turns on the head, side, tail, or dash lights and sounds the electric horn. She does not have to bend down or stretch from her position once while driving."

### SPEED REDUCED

Motor car speeding has been reduced somewhat in Minneapolis by operation of a new rule in the police court. If a man is speeding he is fined at the rate of \$2 a mile over the legal limit, the motorcycle policemen's speedometer being offered as expert testimony. At the outset the fine was at the rate of \$1 a mile, but an extra penalty was deemed advisable.

### BIG MONUMENT TO "FATHER OF AUTO"

Gen. Joseph E. Brown, of St. Paul, Inventor, Honored at Nebraska City.

OMAHA, Feb. 12.—The Nebraska State Historical Association has erected at Nebraska City, a few miles below Omaha, a monument to the "father of automobiles," a huge, unwieldy "steam wagon," with which a prophet of half a century ago dreamed he could race across the Western prairie at ten times the speed attained by the famous "bull teams," which were the only means of communication between the Golden West and the civilized East.

The monument was located on the exact spot from which the great steam wagon started on its memorable trip from the Missouri river to Pike's Peak. The vision of the seer was a true dream, but it was not given him to see its consummation.

Gen. Joseph E. Brown, of St. Paul, was the inventor, and John A. Reed, New York, the builder.

The trial of the machine was made on Bergen Hill, N. J., on a grade of 60 feet to the mile, and upon that occasion the great wagon, hauling eight tons, went up the hill at a speed of four miles per hour.

Gen. Joseph E. Brown, of St. Paul, was the inventor, and John A. Reed, New York, the builder.

**ARMATURES**  
Promptly rewound and at lowest possible cost.  
Motor repairs of any description.  
**WM. J. HILL, INC.**  
250 W. 27th St.—250 W. 28th St.  
NEW YORK CITY

### GASOLENE TRUCK IS BEST FOR LONG HAUL

But for City Service, With Good Road Conditions, Electric Has the Field.

Motor trucks have their place, and the use of gasoline or electric depends on conditions, just as does the use of motor trucks over horses. If a man is willing to plod along slowly and take what he can get if his business is only enough for a single horse, he would not be justified in purchasing motor trucks.

On the other hand, if he wants long hauls and few stops, such as suburban delivery, he certainly would be justified in going beyond the electric and purchasing gas cars.

"But I am convinced," said a man who is eminently qualified to speak with authority on the subject, "that for city service, with road conditions as they now are in most cities, and with short hauls and a number of stops, the electric truck has a field of its own that will not be denied."

"One of the first things to pay attention to in the operation of trucks is speed. The average person wants to travel fast and get there quickly, but when it is remembered that city service often means stops in each block, and that the total standing time of trucks is considerably more than the running time, the speed becomes of less importance. Rather put more men on your trucks and cut down your standing time than cut down on the labor and try to speed up to make up the lost time."

### Announcement

The Edison Storage Battery operates over forty per cent of all the electric trucks in the United States.

Ninety per cent of all the trucks sold in Chicago last year were equipped with Edison Storage Battery.

In this city, among others, the Adams Express Company uses the Edison Storage Battery exclusively.

The Edison Storage Battery is guaranteed to be capable of developing its full rated capacity at all times during and at the end of four years of constant daily service, regardless of the number of charges and discharges it may have had during that time.

We have established a service station in the rear of the Southern Building, under the supervision of one of our most competent inspectors.

The Washington office is also under the direct supervision of our Chief Engineer and Mr. Edison's Personal Representative, Dr. M. R. Hutchison, who visits Washington once a week.

### Edison Storage Battery Company

213 Southern Building,  
Washington, D. C.

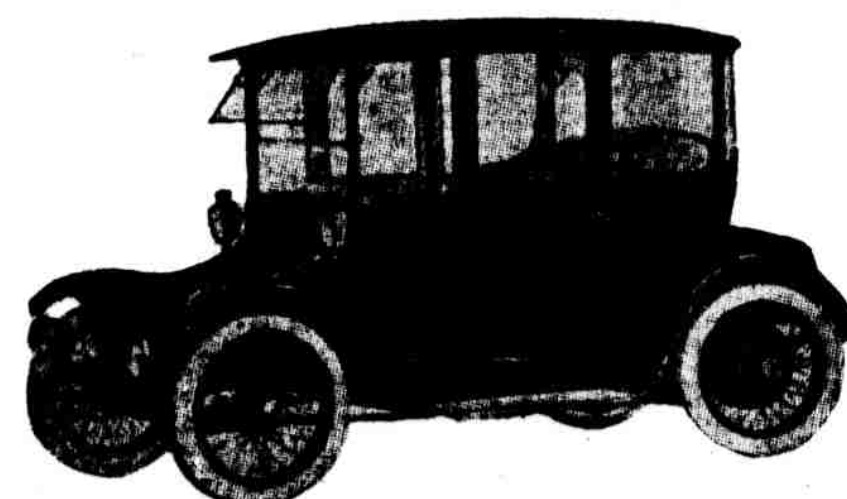
### Go There In



Business men in increasing numbers find their Detroit Electrics ideal for daily trips to and from the office.

In fact, the Detroit Electric daily performs a many-fold task. At one trip it takes the head of the house to the office, the children to school—and then the wife drives it on her rounds for shopping or calling, and at night the theater or some social function.

"Go there in a Detroit Electric"—wherever "there" may be. Your car becomes a real part of your daily life.



Model 52—5-passenger Brougham—Duplex Drive

### THE DETROIT ELECTRIC

is a better investment than any other automobile in the world. For it provides luxury, ever-readiness, all-the-year utility, and economy to a degree found in no other car.

It is easily equal to the task of covering 98 per cent of all the trips you would ever make (75 miles at a speed of 20 miles an hour). And the Detroit Electric is so simple to run that all members of the family can operate it with perfect safety.

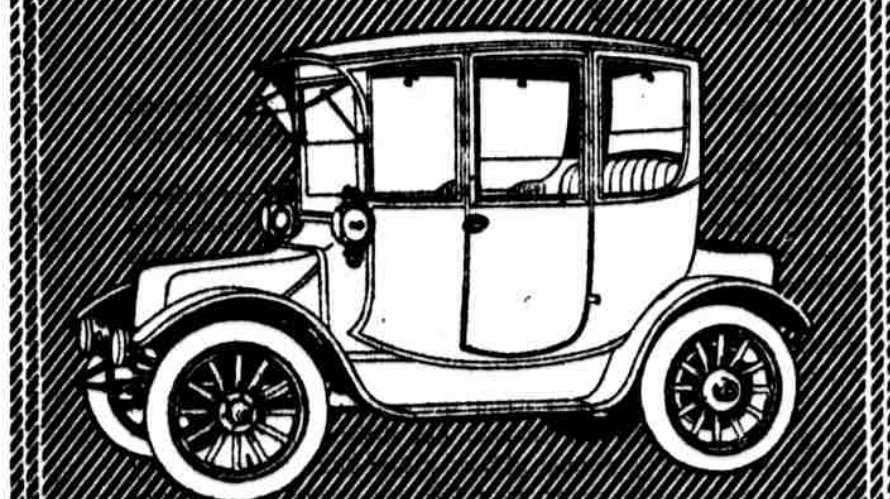
Building one-third of all the electric pleasure cars sold, we not only give you superior quality, but save you from \$300 to \$500 in your electric car purchase—when you consider the larger battery and motor; giving 15 to 20 per cent more power; the silent, frictionless worm gear; the beautiful and durable aluminum body; the fine Turkish upholstery, and lower operating cost.

It is the car that gives you the extreme of motoring luxury and the utmost in mechanical accuracy. Being built by the largest electric pleasure car builders in the world, superiority is built in, NOT TALKED IN.

Ask for our art catalogue, or better, call and see the various models. Your call will incur no obligation, and will not result in your being pestered by overzealous salesmen. We merely want you to know all about the Detroit Electric.

### EMERSON & ORME

Distributors. 1407 H St. N. W. Telephone Main 7695



**THE Raush & Lang Straight-Type, Top-Mounted, Worm Drive is the result of five years of tests, experiments and analyses.**

You buy an electric car for pleasure. Don't let it be spoiled by the noise and disturbance of a car that is still in the experimental stage. It will be a pleasure to explain the merits of a Raush & Lang Worm Drive and show you its possibilities.

**THE BARTRAM ELECTRIC GARAGE**  
The Largest Exclusive Electric Garage in Washington.  
1204-S New Hampshire Ave. N.W. (at H St.). Phone W. 455.

### This Two Ton Electric Truck

- (1) Does usual daily hauling of four horses.
- (2) In addition hauls all incoming and outgoing freight for Washington Railway and Electric Co. and Potomac Electric Power Co., except articles that are too large or otherwise unsuited for hauling by a truck of this size.
- (3) And has time to spare for extra work.

The economy of hauling and delivering by electric trucks has been proved many times. The "proof of the pudding" so far as this truck is concerned is simply evidence that another electric has made good. You business men who make hauling your business, or a part of your business, should lose no time in thoroughly investigating the electric truck.

Let us go over the matter with you. Write or phone us. We will see that you are fully informed

### Potomac Electric Power Co.

Cor. 14th and G Sts. N. W.

Phone Main 7260

